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(54) Title: G PROTEIN-COUPLED RECEPTOR AGONISTS OR ANTAGONISTS

(57) Abstract

The present invention relates to a new class of G protein-coupled receptor agonist or antagonist, which specifically binds to the receptor protein structural elements, thus altering signal transmission and subsequent physiological effects. Described herein are peptide sequences derived from the G protein-coupled receptor protein, produced by chemical methods as selective inhibitors of signal transduction associated with stimulation of the receptor by its ligand. Such peptides or molecules derived from their primary, secondary or tertiary structures may be used as effective tocolytics for the prevention of premature labor or be used for the treatment of dysmenorrhea.